

HIGH SPEED LOW POWER 4-2 COMPRESSOR

Abstract of the Disclosure

5 A high speed low powered 4-2 compressor according to the present
invention performs an XOR/XNOR operation of input data by using a single
input type NAND/NOR logic circuit and a dual input type NAND/NOR logic
circuit. Thus, delays to generate complementary signals are avoided. In
addition, the 4-2 compressor uses a single railed multiplexer instead of a dual
10 railed multiplexer, so that gate drive nodes and internal load capacitance are
reduced. As a result, circuit area and power consumption of the 4-2 compressor
are reduced.

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